

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016314**Date Inspected:** 13-Aug-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

CWI Inspector: Mr. Liu Hua Jie

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

**OBG Segment Trial Assembly**

This QA Inspector observed ZPMC welder Mr. Dai Lu, stencil 048659 used shielded metal arc welding procedure WPS-B-P-2214-B-U3b to make weld SEG058A-012. This weld joins OBG segment 9EE bikepath side plate to the bottom plate. This QA Inspector measured a welding current of approximately 150 amps and Mr. Dai Lu appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Han Yiaofeng, stencil 054467 used shielded metal arc welding procedure WPS-B-P-2214-B-U3b to make weld SEG058A-011. This weld joins OBG segment 9EE cross beam side plate to the bottom plate. This QA Inspector measured a welding current of approximately 150 amps and Mr. Han Yiaofeng appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

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## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

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This QA Inspector observed ZPMC welder Mr. Hu Yanming, stencil 062092 used shielded metal arc welding procedure WPS-B-P-2214-B-U3b to make weld SEG060A-041. This weld joins OBG segment 10AE cross beam side plate to the bottom plate. This QA Inspector measured a welding current of approximately 145 amps and Mr. Hu Yanming appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhu Ming Jun, stencil 040609 used flux cored welding procedure WPS-B-T-2231-B-U2-F to make weld SEG055A-043. This weld joins OBG segment 9EW counterweight side plate to the bottom plate between panel points PP082 and PP083. This QA Inspector observed ZPMC QC has recorded a welding current of 320 amps, 30.5 volts and Mr. Zhu Ming Jun appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Xu Nai Jun stencil 044551 used shielded metal arc welding procedure specification WPS-345-SMAW-4G(4F)-Repair to complete repairs of the base material on the underside of OBG segment 9DW to 9EW near panel point PP079. These repairs had been authorized by critical weld repair document B-CWR1679 and are located where temporary alignment plate removal had resulted in minor base material gouges on both sides of weld OBW9A-008. This QA Inspector observed a welding current of approximately 155 amps, the base material had been preheated with a torch and Mr. Xu Nai Jun appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Li Zaijun, stencil 037996 used shielded metal arc welding procedure specification WPS-345-SMAW-4G(4F)-Repair to complete repairs of the base material on the underside of OBG segment 9DW to 9EW near panel point PP079. These repairs had been authorized by critical weld repair document B-CWR1679 and are located where temporary alignment plate removal had resulted in minor base material gouges on both sides of weld OBW9A-008. This QA Inspector observed a welding current of approximately 150 amps, the base material had been preheated with a torch and Mr. Li Zaijun appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Jiang Jingong, stencil 066361 used shielded metal arc welding procedure WPS-B-P-2112-FCM-1 to make weld SP658-001-020. This QA Inspector observed the welding electrodes are being stored in a heated portable electrode storage oven, Mr. Li Zaijun appeared to be certified to make this weld and the base material is being preheated with an acetylene torch prior to welding. Items observed on this date appeared to generally comply with applicable contract documents

This QA Inspector observed ZPMC welder Mr. Sun Panfeng stencil 208754 using shielded metal arc welding process to a weld temporary alignment plates to OGB segments 10AW top deck. These alignment plates appear to be intended to position the upper counterweight mounting plate to the edge plate. This QA Inspector measured a welding current of approximately 150 amps, the base material adjacent to this weld was preheated with a torch and Mr. Sun Panfeng appeared to be certified to make these welds. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Qixiang, stencil 062812 was using shielded metal arc

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## WELDING INSPECTION REPORT

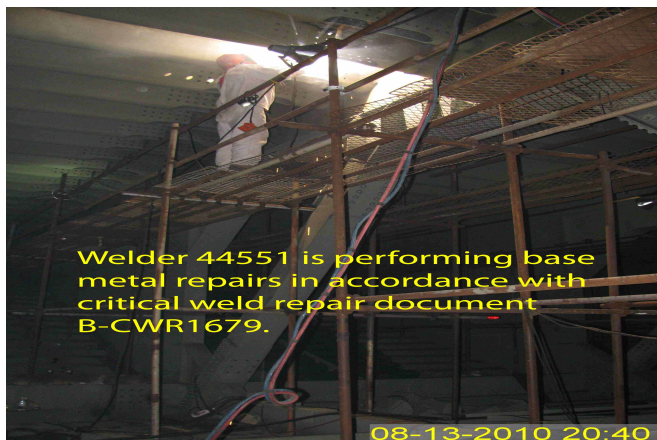
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welding process to tack weld various suspender bracket plates into position on the counterweight side of OBG segment 10EW. This QA Inspector measured a welding current of approximately 150 amps, the base material adjacent to this weld was preheated with a torch and Mr. Wang Qixiang appeared to be certified to make these welds. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhang Qiu Jun stencil 057333 used shielded metal arc welding procedure specification WPS-345-SMAW-3G(3F)-Repair to complete repairs of the base material on the counterweight edge plate of OBG segments 9DW and 9EW near panel point PP079. These repairs had been authorized by critical weld repair document B-CWR1679 and are located where temporary alignment plate removal had resulted in minor base material gouges on both sides of weld OBW9-001. This QA Inspector observed a welding current of approximately 160 amps, the base material had been preheated with a torch and Mr. Zhang Qiu Jun appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

At around midnight this QA Inspector observed ZPMC personnel appeared to be performing blast cleaning of the interior of OBG segments 9AW and 9BW. A heavy cloud of dust, dirt and other fine debris was emanating from various openings of the West bound OBG segments and the dusty cloud was carried in the wind toward other OBG segments.



### Summary of Conversations:

See Above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Dawson,Paul	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

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